WRAPAROUND MILWAUKEE

2012 PERFORMANCE IMPROVEMENT PROJECT

The Wraparound REACH Program

Exploring Youth Transitions into Alternative Systems of Care

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Table of Contents

Study Question……4

Selection Process and Topic Importance……5

Study Indicators……7

Study/Sample Population & Sampling Method……11

Data Collection……13

Improvement Strategies/Intervention……15

Results and Interpretation……16

Project Limitations & Implications for Project Improvement ……29

Real Improvement Achieved……31

Sustained Improvement……33

References……34

Appendices……35

- **Appendix #1 – Risk & Protective Factor Paradigm**
- **Appendix #2 – Child Behavior Checklist (CBCL)**
- **Appendix #3**
  a. **Adverse Childhood Experiences Questionnaire (ACE)**
  b. **Adverse Childhood Experiences Glossary**
- **Appendix #4 – Defining Successful Disenrollments**
- **Appendix #5 – REACH Disenrollment Categories**

Study Question

"What are the contributing factors associated with REACH youth that enter alternative systems of care?"

Selection Process and Topic Importance

STUDY QUESTION

"What are the contributing factors associated with REACH youth that enter alternative systems of care?"

Background Information

Wraparound Milwaukee through the Mobile Urgent Treatment Team (MUTT) has **effectively** deploying three mobile crisis intervention teams to provide services to Milwaukee Public School (MPS) students. Through this intervention it became clear that there were youth with serious emotional challenges that needed longer-term mental health care, including services such as care coordination, individual and family therapy, medication management and AODA services.

In the summer of 2007, Wraparound Milwaukee received approval through our Medicaid "Contract for Services" with the State of Wisconsin, Department of Health Services to increase our member enrollment by 200 additional slots, bringing the total enrollment limit to 800 youth. The increase was a response to the need for services for non-court-ordered youth with serious mental health and behavioral needs, particularly those being served in the MPS.

While the additional youth being served needed to meet the same criteria for enrollment as the regular Wraparound enrollees, including being Medicaid or Badger Care eligible, they did not have to be referred and court-ordered through the Child Welfare or Juvenile Justice systems. A youth's enrollment into one of the 200 new slots was strictly voluntary. While the school system and families themselves were expected to be the main source of referrals, referrals could also come in through the Family Intervention & Support Services program (FISS) in Milwaukee County, the Mobile Urgent Treatment Team (MUTT), and other community agencies.

Wraparound Milwaukee issued a Request for Proposal for expanded Care Coordination services in the summer of 2007 to accommodate this new population. In an effort to recognize this group of youth who were being enrolled into Wraparound in a more voluntary fashion, it was decided to distinguish this part of the program with a different name. Thus, REACH (**R**eaching, **E**ngaging and **A**ssisting **Ch**ildren *and families*) was established under the Wraparound Milwaukee system of care. A formal announcement of this distinction was made in December of 2007.

Care Coordination services were employed a bit differently for this group, including a higher ratio of families to care coordinators as there was no court involvement or out-of-home placement responsibilities. Emphasis was placed on identifying and coordinating informal and natural supports that would provide care and services in a more community-based manner.

At the end of January 2008, REACH was serving more than 50 families. Outreach activities to support enrollment included meetings with MPS schools, school psychologists, social workers and special education teachers. In addition, efforts were also made to connect with area mental health providers, large pediatric practices and the Initial Assessment workers at the Bureau of Milwaukee Child Welfare. By June 2008, REACH enrollment was approximately 106 families. Contributing to the increase in enrollment was the new Badger Care Plus program that was initiated in February of 2008. By 2012, REACH had developed into a thriving program component of Wraparound Milwaukee. Two hundred and fifty-two (252) youth and families were being serviced at this time.

Study Rationale

A preliminary descriptive study was conducted in spring of 2009, comparing and contrasting the characteristics of youth and families of the *regular* Wraparound youth and the REACH youth (Goldfarb, 2009). Such distinctions as REACH having a younger population and having more clinically severe youth were revealed in the study.

Considering that REACH has been operating for five years in which during this time the program has been refined and has accrued a substantial number of youth (n=591 who have disenrolled), it was determined that it is important to explore more deeply the characteristics of the REACH population. This endeavor was endorsed by the Wraparound Management Team.

The overall consensus is that REACH has not only filled an important mental health gap in services in the community, but has also been highly successful. Forty seven percent of the REACH youth have disenrolled successfully and have continued in their home environments. Eighteen percent who have disenrolled transferred to an alternative, higher level of care. The remaining 35% left the program for a sundry of individual idiosyncratic reasons (e.g. moved, lost Medicaid funding, not interested). After much brainstorming, a decision was made to direct our research efforts in learning more about the group of REACH youth who ultimately enter an alternative system of care rather than disenrolling because they have made "substantial progress" in the program. Within the context of this study, **an alternative system of care is defined as court-ordered Wraparound or corrections**. This identified group of youth is moving from a less intensive to more intensive program. The Wraparound Management team felt it was important to better understand what was different about this group of youth who move to these other systems. This knowledge would hopefully enable the staff to make modifications to the program in which services are more individualized, are clearly identified and are more strategic so that a greater number of youth would be able to leave the REACH program with substantial progress.

Study Indicators

STUDY QUESTION

"What are the contributing factors associated with REACH youth that enter alternative systems of care?"

The literature is replete with research that attempts to identify the risk factors for children and youth committing delinquent acts that result in juvenile justice involvement (Shader, M. 2004, Coi, J.D. 1993). The factors that contribute to children entering the Child Welfare system are also well documented (Children Defense Fund 2012.) Recently, there is a peaked interest in those youth who have been coined "crossover" youth, those who move from Child Welfare to Juvenile Justice (Goldstein, B. 2012).

Although the REACH population that enter an alternative system of care are not technically "crossover" youth as identified in the literature, a certain percentage of REACH youth do in essence crossover from REACH into an alternative system of care (most often juvenile justice.)

In line with the research that explores risk factors of juvenile delinquency, it is important to investigate the potential factors that contribute to REACH youth who are living at home and then move toward and enter another, more restrictive system of care. **Essentially, this study is looking at what variables differentiate the youth that successfully disenroll from REACH from those youth that enter an alternative system of care.**

In order to identify which indicators would be explored in this study, a risk and protective factor paradigm adapted from the Office of Surgeon General, 2001 (in Shader, 2004) was used as a guideline. Two of the 5 domains (Individual and Family characteristics) identified on the model provided the rationale for identifying the indicators. These 2 domains capture the majority of the potential risk factors. (Appendix #1)The remaining 3 domains; school, peer group and community were beyond the scope of this study.

Individual Domain

The following individual characteristics were identified as indicators:

- Age when entering REACH
- Gender
- Drug Involvement
- Hospitalization
- Psychological Diagnosis
- Behavioral Functioning
- Meeting Criteria for Special Education

Age at Enrollment and Gender are straight forward indicators that are pulled from the client record.

Drug Involvement is a "yes" or "no" response that is taken directly from the client record.

Hospitalization prior to enrolling in REACH is a "yes" or "no" response with an added number count of hospitalizations that are taken directly from the client record.

Psychological status is diagnosed by a mental health professional using the Diagnostic and Statistical Manual of Mental Disorders (DSM IV). Published by the American Psychiatric Association (2000), DSM IV is a classification/coding system for all currently recognized mental health disorders.

Behavioral Functioning is assessed by Child Behavior Checklist (CBCL). The CBCL, as part of the Achenbach System of Empirically Based Assessment (ASEBA), has proven to have strong reliability and validity properties (Achenbach, T.M., & Rescorla, L. A. 2001). It enables for assessment of diverse aspects of adaptive and maladaptive behavioral functioning (Appendix # 2).

Wraparound Milwaukee has a long history of using CBCL which is completed by parents or significant parental figures. The construction of this instrument includes a number of scales

- Competence Scale
- Internalizing Problem Scale,
- Externalizing Problem Scale
- Total Problem Scale

The scales are described as follows:

- **Competence Scale** – the items are grouped into scales designated as Activities, Social, School and Total Competence (an aggregate of the 3 competency areas). Activities include sports, recreation, jobs and chores. Social concerns group activities and relationships and School comprises academic performance, remedial services, and grade repetition and school problems.
- **Externalizing Scale** – is a grouping of behaviors that represent conflicts with other people (i.e. aggressive behavior) and with the expectations set out for individual behavior (i.e. breaking rule behavior). Examples of individual items include lying, stealing, swearing, using drugs, screaming, being stubborn and destroying property.
- **Total Problem Scale** – is the sum of the scores on all 113 problem items. These include the Externalizing Scale (described above) and the Internalizing Scale (reflecting problems with self; such as anxiety, depression, and somatic complaints) as well as 3 additional clusters (Social problems, Thought problems and Attention problems).

Special Education needs are identified through an evaluation and Individual Education Plan (IEP) process in the schools. What special education services are needed for individual youth is documented in the client record.

Family Domain

Trauma as a significant impact on the mental health of children & youth is well documented (Hodas, G. 2006, Osmoiska, D. 2011, SAMHSA, 2012**).** Trauma is not a new concept. However, until recently, it has been largely seen as applicable to a select group of people, under extraordinary circumstances (survivors of catastrophic events.) Only recently has trauma been recognized as a part of the regular experiences of individuals, including children and youth. The profound linkage between trauma and child development and the disruption of physical and emotional health is just now fully emerging.

Assessing the level and types of trauma that have been experienced by the REACH population presents a snap shot of the possible factors included in the Family Domain. The Adverse Childhood Experiences Questionnaire (ACE) identifies possible types of physical and/or neglect and yields a score from 0-10 (Appendix #3a). The greater the exposure to traumatic events, the greater is the risk of negative consequences.

The following family characteristics, described on the ACE, were identified as indicators:

- Recurrent physical abuse
- Recurrent emotional abuse
- Contact sexual abuse
- An alcohol or drug abuser in the household
- An incarcerated household member
- Emotional/mental Illness in family
- The mother is treated violently
- One or no parents
- Emotional neglect
- Physical neglect

Treatment Factors

Given that the children and youth in REACH are involved in a model of care based on Wraparound principles that focus on identifying personal and family strengths and increasing *functioning capacity* by building up both formal and informal supports and services, it is important to explore the services that are provided. Therefore, in addition to investigating the individual and family characteristics that a youth enters the program with, treatment factors were also explored to determine if there were differences in services and supports provided during their time in REACH between the successful group and the group that entered into an alternative system of care.

The monitoring of the amount and breadth of services provided to each individual is tracked on Synthesis, the Wraparound Milwaukee information technology system. Through the Service Authorization Request System (SARS), the following scope of services was identified as indicators:

- AODA Services
- Child Care/Recreation

- Crisis Stabilization/Supervision
- Discretionary /Flex Funding
- Family Support Services (e.g. housing assistance, parent assistance)
- Formal/informal Support ratio
- In-Home Services (lead Medicaid)
- Inpatient Services (assessment and hospitalization)
- Life Skills (e.g. anger management, independent living skills)
- Medication Management
- Outpatient Services (e.g. group therapy, individual /family counseling)
- Psychological Assessment
- Respite (e.g. for family)
- Time in Program (from enrollment to disenrollment)
- Transportation
- Youth Support Services (e.g. mentoring)

In summary, there are essentially two tracks of investigation. The first track focuses on the individual and family characteristics that a youth had when entering the program. The second is the kind of experience, through provision of services that the youth had while in REACH. The above indicators in each area (Individual, Family and Treatment) were used to measure outcomes.

Study/Sample Population & Sampling Method

STUDY QUESTION

"What are the contributing factors associated with REACH youth that enter alternative systems of care?"

The children and youth identified for this study were drawn from the total REACH population that had enrolled beginning in October 2007 (start date of program) through June 30, 2011 (n=912). There were four defining factors/criteria that the population needed to meet to be considered part of the study:

1. **The youth needed to be disenrolled from the program.**
    - It was apparent that a comparison of those youth who made substantial progress by the time of disenrollment as defined by the Successful Disenrollment formula (Appendix # 4) needed to be compared to a group who had also disenrolled.
    - 591 youth had disenrolled from REACH by June 30, 2011

2. **The reason for disenrollment needed to be identified as either making Substantial Progress, Some Progress, Transferred to Wraparound, Referred to Bureau of Milwaukee Child Welfare, Referred to FISS or Placed in Corrections.**
    - There were a number of other reasons that youth were disenrolled from the program (e.g. family request, moved, Medicaid benefits ended.) Although these reasons may be interesting to explore, they did not address the research question directly.
    - 350 of the 591 (59.3%) youth met the *reason for disenrollment* criteria (Appendix #5).

3. **Youth needed to be in the REACH program a minimum of 12 months**
    - The rationale for limiting this study to youth who were in the program for a minimum of one year was based on clinical judgment. For this population it takes a considerable amount of time to effect meaningful change. (These children have serious mental health needs and their families also exhibit an array of complex needs.) For purposes of this study, it was felt that those families that dropped out early, for whatever reason, did not benefit fully from the program. Twelve months of time in REACH was determined to be reasonable.
    - 278 of the 350 youth met this criterion.

4. **Youth needed to be at least 12 years old upon disenrollment from REACH**
    - *Regular* Wraparound primarily serves youth that have been adjudicated and enter under a delinquency order. Adjudicated youth must be at least 12 years old. Generally, younger children, enter Wraparound through a CHIPS or JIPS petitions (Child or Juvenile in Need of Protective Services). The majority of youth in REACH that entered an alternative system of care transitioned into *Regular* Wraparound (62/89 or 70 %.) Therefore, limiting youth by age at disenrollment was necessary in order to identify those youth that entered an alternative system due to escalation of behavioral concerns.
    - 160 of the 278 youth met this criterion.

There was no sampling methodology applied. One hundred percent of REACH youth that met the above 4 criteria were used in the study, n=160.

Data Collection

STUDY QUESTION

"What are the contributing factors associated with REACH youth that enter alternative systems of care?"

The data collected followed the conceptual principles revealed in related research (Shader, M. 2004). The data collection methodology was directly linked to the indicators described in the previous section of the report (Individual, Family Domains and Treatment Factors).

Data was collected and brought together from the information that had been entered into each youth's record by accessing Wraparound Milwaukee's IT system, Synthesis.

The data was entered into Predictive Analytics SoftWare Statistics (PASW 18, formerly SPSS) for statistical analysis.

Confidentiality was upheld as each youth's data was entered into PASW using a numbering system so that no identifying information was evident.

Collection of Individual Domain Data

- Data for Entering Age and Gender were pulled directly off the client record.

- Data for Psychological Diagnosis was also retrieved from the client record. However, each single diagnosis was than categorized under Chapter Headings that are identified by DSM IV (1994). The Chapters categorize individual diagnoses into groupings that are defined by a set of organizing principles. The organizing chapters that were identified in this study were Disorders of:

    - Anxiety (e.g. Stress Disorder, Generalized Anxiety Disorder)
    - Child (e.g. Oppositional Defiant Disorder, Attention Deficit Disorder)
    - Other(e.g. Parent-Child Relational Problem)
    - Mood (e.g. Bipolar Disorder, Major Depressive Disorder)
    - Psychotic (e.g. Schizophrenia)

- Behavioral Functioning data appraised through the scores of the CBCL were easily acquired through the client record for each youth.

- Special Education Diagnostic categories were also specified in the client record. The following categories were identified:

    - Emotional Disturbance (ED)
    - Learning Disabilities (LD)
    - Cognitive Disabilities (CD)
    - Other Health Impaired (OHI)
    - Multiple Disabilities (indicated if more than one special education category was attributed to a youth

Collection of Family Domain Data

Family information is found in the *Family Narrative* of the Plan of Care (a part of the client record.) The ACE was applied to the Family Narrative to "summarize" critical family incidences and traumatic events that could potentially affect the outcome when participating in REACH.

The Family Narrative for each youth was reviewed for evidence of the indicators on the ACE. Then scored, the ACE provided a summary of the types of trauma experienced within the family (total ACE score from 0-10).

Inter-rater reliability assurances were necessary to complete the ACE. A definition glossary sheet for each item of the ACE was created (Appendix #3b). One additional person was trained to look for key words within the Family Narrative that would indicate a score on the ACE.

Collection of Treatment Factor Data

Treatment information for every youth is found in the SARS section of the client record in which the total cost for each authorized service is itemized.

The youth's expenditures for each service were recalculated to a cost/month. Each youth's time in the program varied (from 12 months - 43 months). The conversion to monthly costs allowed for comparisons.

In addition to services, the total monthly cost was calculated and the ratio of informal to formal supports was recorded.

Improvement Strategies/Intervention

STUDY QUESTION

"What are the contributing factors associated with REACH youth that enter alternative systems of care?"

The intent of the study was to gain insight into the contributing factors and characteristics of those REACH youth entering alternative systems of care and how they may differ from those youth who had successfully completed the program. Acquiring a better understanding of this population and comparing it to those who were successfully disenrolled was critical to learning what interventions and/or services may promote better outcomes. This study was designed to be exploratory in nature and open ended.

Results and Interpretation

Study Question

"What are the contributing factors associated with REACH youth that enter alternative systems of care?"

The data analysis for the individual and family domains occurred through a 2-step process in order to distinguish groups. *Progress Groups* included those that 1) had made *substantial* progress in REACH and 2) those youth who made *some* progress in REACH. *The Substantial Progress* group is identified as those youth that have a score of ≥75/100 on the *Defining Successful Disenrollment* tool while the *Some Progress group* yields a score of ≤74. The third group was comprised of those youth who entered an alternative system of care, the *Transfer to System* group. The first step was an analysis of the total population (the 3 groups) that met the study criteria (n=160). Step two was a comparison of the 2 extreme groups, those that made substantial progress to those that entered a system of care, identified as a higher level of care (n=122.)

The following outline delineates the analyses and their respective components:

Analysis #1

Comparison of the 3 Groups (*Substantial Progress, Some Progress* and *Transfer to System*)

Analysis #2

Comparison of the 2 Groups (*Substantial Progress* and *Transfer to System*)

a. Individual & Family Domains
b. Services/Treatment Factors
c. Discriminate Analysis

Analysis #1

The first analysis was completed on the whole population (both progress groups and the transfer to system group, n=160.) This was done in order to have clearer picture/representation of the whole population before comparing the 2 contrasting groups.

Results

Individual Domain Outcomes

1. Age at Enrollment
    a. The age range span is from 9 years 10 months to 17 years 9 months.
    b. The overall mean is 13.5 and the median is 13.3.

i. Based on a one way analysis of variance the difference between groups is significant, F=5.430 (mean variance) ; p=.005
ii. With a significant difference between the *Substantial Progress group* & the *Some Progress group* (*mean age 13.21 vs. mean age 14.9 respectively*, p=.004)
iii. *Transfer to System Group* age is similar to *Substantial group* (mean age 13.29). However, the "*n"* is too small to reveal a significant difference.

2. Age at Disenrollment
    a. Based on a one way analysis of variance the difference between groups is significant, F=4.731 (mean variance) ; p=.01
    b. Significant difference between the *Substantial group* & the *Some Progress group* (*mean age: 14.92 vs. mean age 16.0 respectively* p=.008)
    c. *Transfer to System group* age is similar to *Substantial Group* (mean age 14.98). Again the "n" is too small to detect significance.

3. Time in Program
    a. Mean times in program are:
        i. *Substantial Group* 21.17 months
        ii. *Some Progress group* 19.32 months
        iii. *Transfer to System Group* 20.62 months
    b. Based on a one way analysis of variance there is no significant differences between groups.

4. Ethnicity
    a. Using a chi square analysis there is no significant differences between groups.

5. Gender
    a. Using a chi square analysis there is a significant difference between groups (x^2=14.78, p=.001)
    b. *Transfer to System* group is 97% male and only 1 female.

6. Drug involvement
    a. Using a chi square analysis there is a significant difference between groups (x^2= 9.3, p=.01).
    b. The *Some Progress* group had 35% higher incidence of drug involvement.

7. Special Education – a chi-square analysis was completed for all special education placements

a. Emotional Disabilities (ED)
    i. Data revealed no significant difference between groups
    ii. Twenty nine percent of the *Substantial Progress* group were identified ED, 31% of the Some Progress group and 41% of the Transfer to System group
b. Learning Disabilities (LD)
    i. Data revealed no significant difference between groups
c. Cognitive Disabilities (CD)
    i. Data revealed no significant difference between groups
    ii. Three percent of the *Substantial Progress* group was labeled CD, 11% of the Some *Progress* group and 0% of the *Transfer to System* group.
d. Other Health Impaired (OHI)
    i. Data revealed no significant difference between groups
e. Multiple Needs
    i. Data revealed no significant difference between groups

8. Diagnosis
    a. Mood Disorders
        i. Data revealed no significant difference between groups
    b. Child Disorder
        i. Using a chi square analysis there is a significant difference between groups (x^2 = 6.9, p=.03)
        ii. Forty four percent of the *Substantial Progress* group, 29% of the *Some Progress* group and 63% of the *Transfer to System* group were identified with a diagnosis that fell under the *Child Chapter* of the DSM IV.
        iii. Higher incidence of Child Disorders (e.g. conduct disorder, ADHD) in *Transfer to System* group
    c. Anxiety Disorder
        i. Data revealed no significant difference between groups
        ii. Although not significant, it is interesting that only 1 (1.8%) of the *Transfer to System* group were diagnosed with anxiety. While the *Substantial Progress* group and the *Some Progress* group yielded 8.9% & 4.1% respectively.
    d. Psychotic Disorder
        i. Data revealed no significant difference between groups
    e. Other
        i. Data revealed no significant difference between groups

Outcome Summary Chart
Comparison of Differences Between the Three Groups
(*Substantial Progress, Some Progress & Transfer to System*)

Indicator	Substantial Progress	Some Progress	Transfer to System
Age at Enrollment*		P=.004	
Age at Disenrollment*		P=.008	
Gender*			P=.001
Drug Involvement*		P=.01	
CBCL Externalizing Problem Score*			P=.017
Diagnosis/Child Disorder*			P=.03
ED Special Education **	29%	31%	41%
CD Special Education **	3%	11%	0%
Diagnosis/Anxiety Disorder**	8.9%	4.1%	1.8%

*Significant
**Not significant, but interesting

Interpretation

The outcomes for the 3 group comparison reveal a more complete description of the entire population of children and youth in REACH who met the criteria of the study. This initial section of the analysis looked at the individual domain/characteristics of the population. It also laid the foundation and direction for the more in-depth research of the 2 extreme groups; those that made substantial progress and those that left REACH without achieving successful disenrollment.

Most interesting outcomes were related to the *Some Progress* group. This group is generally older upon entering the program ($\bar{x}$ age 14.9) and is older upon disenrollment. However the amount of time in REACH is not significantly different ($\bar{x}$ 19.32 months) than the other 2 groups ($\bar{x}$ 21.17 & 20.62 months) and, although not significant, is actually a shorter average time. Due to their older age at enrollment, many of these youth are 17 + when they disenroll from the program. Given that REACH is a voluntary program and by 17 years of age, a plan typically includes transition to adulthood, the assumption may be that it is time for them to disenroll even if they have not made substantial progress. Further investigation is needed to determine who is fostering disenrollment (youth, family, team) and if appropriate what can be done to extend their time in REACH in order to possibly secure a higher level of success.

The characteristics of the *Some Progress* group gleaned from the outcome data suggests that this population has a greater incidence of cognitive disabilities (11%) and exhibits a significantly higher incidence of drug involvement. How these 2 variables may correlate with the level of

progress in REACH needs to be explored as well as how the program can better address these specific individual characteristics.

As the percentages of each group of youth who have been identified as ED is higher in the *Transfer to System* group (41%) compared to the *Some Progress* group (31%) and *Substantial Progress* group (29%), it suggests that school behavioral functioning may be attributed to the level of success in the program.

Finally, in the area of a diagnosis of Anxiety Disorder, the *Transfer to System* group is lowest (1.8%); compared to the *Some Progress* group (4.1%) and *Substantial Progress* group (8.9%). This may suggest that a diagnosis of Anxiety Disorder does not necessarily affect one's progress in program. (See above summary chart.)

Analysis # 2

The next step in the data analysis was to compare the two extreme groups identified, the *Substantial Progress* group and the *Transfer to System* group, (the total *n*=122.) The comparisons addressed both the Individual and the Family Domains.

Individual & Family

Results

Individual Domain Outcomes

1. Age at Enrollment
    a. Data revealed no significant difference between groups
2. Age at Disenrollment
    a. Data revealed no significant difference between groups
3. Time in Program
    a. Data revealed no significant difference between groups
4. Ethnicity
    a. Data revealed no significant difference between groups
5. Gender
    a. Using a chi square analysis there is a significant difference between groups (x^2 = 9.09, p=.003)
    b. Only 1 female in the *Transfer to System* group, 97% male
6. Hospitalization
    a. Using a chi square analysis there is a significant difference between groups (x^2 = 4.478, p=.034)
    b. 40% *of Substantial Progress* group and 63% of *Transfer to System* group were hospitalized one or more times prior to enrolling in REACH

7. Drug Involvement
    a. Data revealed no significant difference between groups
8. Special Education
    a. Emotional Disabilities (ED)
        i. Data revealed no significant difference between groups
        ii. 29% *of Substantial Progress* group and 41% of *Transfer to System* group were labeled ED
    b. Learning Disabilities (LD)
        i. Data revealed no significant difference between groups
    c. Cognitive Disabilities (CD)
        i. Data revealed no significant difference between groups
    d. Other Health Impaired (OHI)
        i. Data revealed no significant difference between groups
    e. Multiple Disabilities
        i. Data revealed no significant difference between groups
9. Diagnosis
    a. Mood
        i. Data revealed no significant difference between groups
    b. Child Disorders
        i. Data revealed no significant difference between groups (p=.058)
        ii. 66% of *Substantial Progress* group and 85% of Transfer *to System* group were identified with a diagnosis that fell under the *Child Chapter* of the DSM IV.
    c. Anxiety Disorders
        i. Data revealed no significant difference between groups (p=.067)
        ii. 17.9% of the Substantial Progress group and 3.7% of the Transfer to System group were identified with a diagnosis that fell under the Anxiety *Chapter* of the DSM IV.
    d. Psychotic Disorders
        i. Data revealed no significant difference between groups
    e. Other
        i. Data revealed no significant difference between groups

10. Behavioral Functioning as measured by the CBCL
    a. Competence Score
        i. Data revealed no significant difference between groups
    b. Internalizing Problem Score
        i. Data revealed no significant difference between groups
    c. Externalizing Problem Score
        i. Using a t- test for comparison of means a significant difference was revealed between the 2 groups (t=2.046, p=.043)

ii. A mean of 71.18 in *Substantial Progress* group and a mean of 75.91 in the *Transfer to System* group

d. Total Problem Score
    i. Data revealed no significant difference between groups

Family Domain Outcomes

(Using the ACE as the measurement tool for identifying exposure to potential trauma)

1. Recurrent Physical Abuse
    a. Data revealed no significant difference between groups (p= .092)
    b. 3% of the Substantial Progress group and 11% of the Transfer to System group experienced recurrent physical abuse
2. Recurrent Emotional Abuse
    a. Data revealed no significant difference between groups
3. Contact Sexual Abuse
    a. Data revealed no significant difference between groups
4. Drugs in Household
    a. Data revealed no significant difference between groups
5. Mental Illness in Family
    a. Data revealed no significant difference between groups
6. Mother Treated Violently
    a. Data revealed no significant difference between groups
7. One or No Parents
    a. Data revealed no significant difference between groups (p=.078)
    b. 89% Substantial Progress group and 100% of the Transfer to System group experienced a divorce or a separation of parents
8. Emotional Neglect
    a. Data revealed no significant difference between groups
9. Physical Neglect
    a. Data revealed no significant difference between groups
10. Total Trauma/Ace Score
    a. Data revealed no significant difference between groups

Outcome Summary Chart
Comparison of Differences Between the Two Groups
(*Substantial Progress & Transfer to System*)

Indicator	Substantial Progress	Transfer to System
Individual		
Gender*		P=.003
Hospitalization*		P=.034
CBCL/Externalizing Problem Score*		P=.043
ED Special Education **	29%	41%
Diagnosis/Child Disorder**	66%	85%
Diagnosis/Anxiety Disorder**	17.9%	3.7%
Family		
Recurrent Physical** Abuse	3%	11%
One or No Parents**	89%	100%

*Significant

**Not significant, but interesting

Interpretation

Individual Domain

Reviewing the significant outcome data and the compelling patterns revealed in the data, a picture of individual and family characteristics emerge for the *Substantial Progress* group and the *Transfer to System* group.

Of the significant data, gender appears to be very descriptive and a discriminating indicator of the *Transfer to System* group. Ninety-seven percent or 26/27 youth were male. This suggests that a male, entering REACH, may have a greater likelihood of ultimately entering a system of care such as the juvenile justice system.

Hospitalizations were significantly higher in the *Transfer to System* group. Sixty-three percent of this total population entered into Inpatient Care an average of 2.28 times prior to enrolling in REACH.

Also significant was the Externalizing Problem Score of the CBCL. The *Transfer to System* group had a significantly higher average t-score ($\bar{x}$ 75.91). The behaviors identified as externalizing on the CBCL include a large category of rule-breaking behaviors and aggressive behaviors (e.g. argues, threatens, and destroys property, fights, truant, vandalism, steals). Exhibiting these types of behavior is very characteristic of youth that are in the juvenile justice system. This

suggests that youth that have high Externalizing Problem scores on the CBCL are at greater risk of moving into a higher level of care.

Reviewing the non significant trend data for ED Special Education (see above summary chart), a likelihood ratio for the ED identification suggests that it is 1 ½ times more likely that a youth identified as ED will end up in the *Transfer to System* group. The data also suggests that it is 3 times more likely that a youth with a mental health diagnosis categorized under the Child Disorder chapter will fall into the *Transfer to System* group.

The data also reveals that the *Substantial Progress* group is 4 times more likely (likelihood ratio value of 4.279) to have a mental health diagnosis that falls into the Anxiety Disorder chapter.

Family Domain

Although not statistically significant (p=.092), the history of recurrent physical abuse has a higher prevalence in the *Transfer to System* group. Given the social learning literature (Bandura, 1973) that explains that aggression is acquired through viewing aggressive models, documented increase in aggressive behavior in this group is not surprising. In a future study in which an a priori hypothesis can be established and then a one tailed test can be applied, it appears that this indicator would be statistically significant.

Even though statistically not significant (p=.078), the 100% of youth who had no or one parent in the *Transfer to System* group is consonant with the trauma research literature (Digitale, E. (2011) which espouses significant effect. In a future study in which an a priori hypothesis can be established and then a one tailed test can be applied, it appears that this indicator would be statistically significant.

Services/Treatment Factors

In an effort to determine if there were differences in services and supports provided to the *Substantial Progress* group and the *Transfer to System* group while they were in REACH. The next cluster of analyses focused on treatment factors.

Results

Treatment Factors

Service Hours

1. AODA Service
    a. Data revealed no significant difference between groups
2. Care Coordination
    a. Data revealed no significant difference between groups

3. Child Care
    a. Using a t- test for comparison of means, a significant difference was revealed between the 2 groups (t=2.115, p=.037)
    b. A mean of .1177 in *Substantial Progress* group vs. a mean of .4396 in the *Transfer to System* group suggests that the amount of child care services provided was significantly greater in the *Transfer to System* group.
4. Crisis
    a. Using a t- test for comparison of means, a significant difference was revealed between the 2 groups (t=-4.610, p=.000)
    b. A mean of 13.69 in *Substantial Progress* group vs. a mean of 27.47 in the *Transfer to System* group suggests that the amount of crisis services provided was significantly greater in the *Transfer to System group*.
5. Discretionary
    a. Data revealed no significant difference between groups
6. Family Support
    a. Data revealed no significant difference between groups
7. Formal vs. Informal
    a. Using a t- test for comparison of means, a significant difference was revealed between the 2 groups (t=-2.593, p=.011)
    b. A mean of .6748 in the *Substantial Progress* group vs. a mean of .5570 in the *Transfer to System* group suggests that the ratio of Formal to Informal supports on the family team is significantly lower for the *Transfer to System* group.
8. In-Home
    a. Using a t- test for comparison of means, a significant difference was revealed between the two groups (t=-2.282, p=.024)
    b. A mean of 4.10 in *Substantial Progress* group vs. a mean of 6.05 in the *Transfer to System* group suggests that the amount of In-Home services provided was significantly greater in the *Transfer to System* group.
9. Inpatient
    a. Using a t- test for comparison of means, a significant difference was revealed between the 2 groups (t=-3.987, p=.000)
    b. A mean of .0303 in *Substantial Progress* group vs. a mean of .1874 in the *Transfer to System* group, suggests that the amount of Inpatient Services provided was significantly greater in the *Transfer to System* group.
10. Life Skills
    a. Data revealed no significant difference between groups
11. Med Management
    a. Data revealed no significant difference between groups
12. Outpatient
    a. Data revealed no significant difference between groups

13. Psychological Assessment
    a. Data revealed no significant difference between groups
14. Respite
    a. Data revealed no significant difference between groups
15. Transportation
    a. Data revealed no significant difference between groups
16. Youth Support
    a. Data revealed no significant difference between groups

Service Costs

1. Inpatient Cost
    a. Using a t- test for comparison of means, a significant difference was revealed between the 2 groups s (t=-3.938, p=.000)
    b. A mean of $34.14/month for the *Substantial Progress* group vs. $215.33/month for the *Transfer to System* group, suggests that the *Transfer to System* group spends more time using Inpatient services while in REACH
2. Total Cost
    a. Using a t- test for comparison of means, a significant difference was revealed between the two groups (t=-4.613, p=.000)
    b. A mean of $1300.28 in the *Substantial Progress* group vs. a mean of $1695.78 in the *Transfer to System* group, suggests that the total service cost per month was significantly greater in the *Transfer to System* group.

Outcome Summary Chart
Comparison of Differences Between the Two groups
(*Substantial Progress & Transfer to System*)

Indicator	Substantial Progress	Transfer to System
Treatment Hours		
Child Care*		P=.037
Crisis*		P=.000
Formal /Informal*		P=.011
In-Home*		P=.024
Inpatient *		P=.000
Treatment Costs		
Inpatient Cost*		P=.000
Total Cost *		P=.000

*Significant

Interpretations

Services are individualized based on the needs of the youth and family. However, there are some services that are generally utilized for all youth in REACH and for all youth that have mental health needs.

Crisis, In-Home and Inpatient services were provided at a statistically significant higher rate for the *Transition to System* group than the *Substantial Progress* group (see summary chart above). All of these services appear to be related. When a youth is having a mental health crisis, a crisis worker may be called to de-escalate the situation. These crises may result in hospitalization and/or an increased need for additional In-Home therapy. The higher usage rate can be interpreted the youth having greater needs.

With the Care Coordinator as facilitator, a Child and Family Team is created for each youth. Together the members of the Team create the Plan of Care based on the individual needs of the youth and family. The Team's composition must include both formal supports (i.e. professional, paid staff) and informal supports (e.g. relatives, neighbors, friends, faith-based members of a community). The underlying concept of the use of informal supports as "natural helpers" is that they will be available after the youth disenrolls from REACH and formal services are no longer available to the family. The goal of REACH is to maintain at least a 50% ratio of formal to informal supports on the family team. Although the *Transfer to System* group maintains this minimum ($\bar{x}$ .5578), there continues to be significantly less support than in the *Substantial Progress* group ($\bar{x}$ .6748).

The significantly higher usage rate for Child Care with the *Transition to System* group is noted. No obvious explanation can be clearly identified at this time. However, the needs for child care so that family member can go to meetings or therapy may be related to the lack of supports that a family has, the size of the family or their inability to pay for child care services. This statistical difference requires further investigation.

Lastly, overall treatment costs and the amount of inpatient services are both significantly higher in the Transition to System group. Inpatient hospitalization is the most expensive service. Therefore, inpatient costs impact on total treatment costs.

Discriminate Analysis

A discriminate analysis was conducted as the final outcome assessment. The general purpose was to identify a combination of variables/indicators that could predict outcomes. This line of investigation mirrors the work of Shader (2004) who identified a combination of variables that are risk factors for delinquency. The two questions that are asked through this analysis are:

- What are the variables that differentiate one group from another?
- What are the attributes that suggest outcomes?

Results

Discriminate Analysis Outcome Summary Chart

Analysis 1*	Analysis 2*	Analysis 3*
X^2= 12.43, p= .029	X^2= 22.09, p .001	X^2= 22.53, p .001
CBCL Externalizing Problem Score	Service Cost	Service Cost
Child Disorder	Crisis Services	Crisis Services
Hospitalization	CBCL Externalizing Problem Score	Child Disorder
Trauma/Physical Abuse	Hospitalization	CBCL Externalizing Problem Score
CBCL Internalizing Problem Score	CBCL Internalizing Problem Score	Hospitalization
		CBCL Internalizing Problem Score
Substantial Progress group predict membership 67.7% of the time	*Substantial Progress* group predict membership 76.6% of the time	*Substantial Progress* group predict membership 81.8% of the time
Transfer to System group predicts membership 72.7%	*Transfer to System* group predicts membership 54.5%	*Transfer to System* group predicts membership 54.5%

Interpretation

Three discriminate analyses were conducted. Analysis 1 looked at a combination of five individual and family factors that could predict with some level of certainty which group, *Substantial Progress* group or *Transfer to System* group, a youth could ultimately fall into. These combination of factors are listed in descending order, the top one (CBCL Externalizing Problem Score) would have greater "predictable power/impact" than the last one (CBCL Internalizing Problem Score). As identified on the chart, the ability to predict membership in the *Substantial Progress* group based on this combination of variables is 67.7% of the time. For the *Transfer to System* group these variables predict membership 72.7% of the time.

Analysis 2 and 3 combined statistically significant individual variables with statistically significant treatment factors (Service Cost & Crisis Service). Adding these treatment indicators to the mix of influencing variables resulted in an increased likelihood of predicting membership in the *Substantial Progress* group (76.6% & 81.8%). Analyzing the data further, it appears that excluding the variable of history of trauma, physical abuse reduced the probability of membership in the *Transfer to System* group from 72.7% to 54.5%.

However, it is important to note that a predictability of quotient of over 50% is considered a reasonable prediction level.

Project Limitations and Implications for Project Improvement

Study Question

"What are the contributing factors associated with REACH youth that enter alternative systems of care?"

Limitations

As a retrospective study, the client records were reviewed as a means of gathering specific information. The extraction of some information was more difficult due to the electronic format of the client record. This limited the study to what information could be easily extracted.

Although in each youth's record there is a long list of identified strengths, they do not necessarily correspond with what the literature defines and reports as protective factors (e.g. IQ, positive role models, commitment to school and parental monitoring) that could potentially ameliorate unwanted outcomes. Given the strong philosophy of Wraparound, that of being strength based and knowing that the literature clearly discusses protective factors as influential to outcomes, not exploring protective factors limited the ultimate understanding of the research outcomes.

The Child Behavior Checklist (CBCL) is a required to be completed by a parent or guardian of every youth upon entering the program. The information that is gathered from the CBCL is divided into two major areas; competencies and problem areas. The construction of the CBCL is such that the competency area is more difficult to answer and therefore is frequently left incomplete. First, incomplete information affects statistical outcomes and interpretation of the data. But most important is that the competency section of the CBCL could contribute to understanding the protective factors that youth exhibit.

The pool of youth that met the criteria for the study that was identified as the *Transfer to System* group was relatively small (n= 27). In a few cases the small *n* limited the statistical analysis. Although it would have better from a research perspective to have a larger number, the small population size speaks to the overall success of REACH.

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Implications for Project Improvement

The breadth of this study will continue to require gathering data through record review. However now understanding what information may be important to collect (i.e. additional

domain information and protective factors), the methods for gathering and recording such information so that it can be easily extracted from the youth's record need further development. Presently, much of this information is found in the progress notes, which is too cumbersome to sift through and is open to inter-rater reliability issues.

Using the *Risk & Protective Factor Paradigm* of Shader 2004 *as* a guide, other domains such as school and community could have been explored. Additionally, the protective factors that are held by the youth and the family (e.g. motivation, positive attitudes, and supportive relationships at home) would have added some very critical information about the potential for success in the program. These more specific protective factors need to be discussed to identify methods for gathering this information and how to record them in the youth's record so that it can be easily accessed.

Incomplete CBCL's can only be addressed through training. First training the Care Coordinators who distribute and explain the CBCL to parents and then training to the parents on how to fill out the competency section. It may also require the parent to investigate some of the answers (e.g. friends at school) with the help of the family team if necessary prior to completing the CBCL.

Real Improvement Achieved

Study Question

"What are the contributing factors associated with REACH youth that enter alternative systems of care?"

Lessons Learned

The complexity of human characteristics and the environmental factors that impact on them challenges our ability to understand the classification and the causality of individual behaviors. The juvenile justice field, for example, has a growing body of research that attempts to understand the causes of delinquency (Coie, 1993). Single theoretical models that explain the variables that cause delinquency have been simultaneously been rejected (because of their simplicity) and have also been incorporated into the broader picture of multiple risk factors that can contribute to delinquency. Farrington (2000) labels this consideration of multiple factors across a number of domains the *Risk Factor Paradigm*.

This approach provided the research direction when exploring the straightforward question of why some youth in REACH make progress and are successful while others struggle resulting in them transferring to a higher level of care. A comparison of individual and family factors of those that were deemed highly successful to those that needed a higher level of care, yielded a number of significant factors (i.e. gender, hospitalization, CBCL Externalizing Problem score) and a number of factors that revealed a trend (i.e. ED Special Education, Mental Health Diagnosis of Child Disorders, Recurrent Physical Abuse and living with no or one parent).

The factors identified in the paragraph above, lend themselves to theoretical conjecture. However, without knowing how they are related and to what degree each variable impacts on the potential outcome, they merely are interesting bits of information about the youth that fall into the *Transition to System* group.

Through a discriminate analysis, these factors, taken together, identify important variables for distinguishing among the two groups, and allow for the development of a procedure for predicting group membership.

The first discriminate analysis resulted in a combination of individual and family factors (see Discriminate Analysis Outcome Summary Chart, p.28) that suggest a profile of a youth that may have trouble successfully disenrolling from REACH. As represented on the CBCL, characteristically these youth will exhibit high levels of aggressive and rule breaking behavior. The profile is further substantiated by a DSM IV diagnosis that falls into a category of Child Disorders (e.g. ADHD, Oppositional Defiant and Conduct Disorders). Not as prevalent, but part of the profile, would be the number of hospitalizations a youth had experienced before

entering REACH and a history of trauma related to witnessing and/or experiencing physical abuse. A lower CBCL Internalizing Problem score fits with this profile. Additionally, if this youth is male, he is further at risk of not successfully completing the program. These variables predict membership into the *Transfer to System* group 72.7% of the time.

The lesson learned, is that it is important to review these individual and family variables upon admission into the program. Given this type of profile, specific evidence-based practices that are appropriate for these youth (e.g. Multi-Systemic Family Therapy, Motivational Interviewing and Cognitive Behavioral Approaches) can be identified and incorporated into the services provided.

The other two discriminate analyses (#2 & # 3, p. 28), introduce treatment factors into the profile mix to determine if these variables could help identify which group (*Substantial Progress* or *Transfer to System)* a youth may be in upon disenrollment. The statistically significant treatment factors of Service Cost & Crisis Services are high on the list of predicting disenrollment outcomes. Therefore, it appears that close attention to the amount of crisis services a youth is using and escalating service costs are important guidelines when strategizing treatment options that may be helpful in diverting youth from becoming part of the *Transition to System* group. Additionally, the lower formal/informal support ratio on family teams, as a statically significant factor, may also contribute to poor success in REACH. The rationale for a higher ratio of informal/formal supports is beyond the scope of this research. However, this study implies the importance of maintaining high level of informal supports for these high risk youth.

These same analyses also identified the characteristics that distinguish youth that are more likely to succeed (*Substantial Progress* group). These youth had lower scores on these same dimensions (closer to 0 than 1 statistically) (see p.28). These variables predict membership into the *Substantial Progress as high as* 81.8%.

Although the comparison of the three groups *Substantial Progress, Some Progress & Transfer to System* was completed in order to acquire a complete picture of the population and the *Some Progress* group was not the primary focus of the research, the data gathered related to the *Some Progress* group does provide interesting information and questions.

The *Some Progress* youth are older and yet stay in the program approximately the same amount of time than the other two groups. One might wonder if they should have more time in the program to achieve greater success, especially when there are a significant number of cognitively disabled youth in this group and many have AODA issues. Focusing on their readiness to disenroll from REACH, in spite of their age would be important.

It may also be helpful to further analyze which specific criteria of the *Defining Successful Disenrollment* tool are problematic for each of the groups, especially the *Some Progress* group. Is there a pattern to the criteria that are not being met? Are they having difficulties achieveing of needs, the parents' or youth's perception of change or with the decrease of clinical symptoms? This type of analysis would help the treatment teams focus on the possible areas of concern and allow for a greater focus on the building of protective factors.

Sustained Improvement

Study Question

"What are the contributing factors associated with REACH youth that enter alternative systems of care?"

As the study was one of a more exploratory nature, research methodologies such as the demonstration of sustained improvement through repeated measurements over comparable time periods is not applicable.

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Appendices

Appendix # 1

RISK & PROTECTIVE FACTOR PARADIGM

P_{erson} X $E_{nvironment}$ = Risk

Risk Factors **Protective Factors**

Domain	Individual/Person Characteristics	Family/Environmental Factors	Treatment/Program Contributors	Protective Factors
	Age Gender Ethnicity Age Special Education Need Behavioral Functioning Mental Health Diagnosis Hospitalizations AODA Concerns	Trauma (measured by the ACE)	Length of Time in program Support Service Mix Cost of Services Formal vs. Informal Supports	

Appendix # 2

Placement of the Child Behavior Checklist (CBCL) in hard copy only

Appendix #3a

Adverse Childhood Experience (ACE) Questionnaire

Is there evidence in the record or through interview of youth and/or parent of the following occurrences before the age of 18?

		If Yes, enter 1
Recurrent physical abuse	**Yes** **No**	
Recurrent emotional abuse	**Yes** **No**	
Contact sexual abuse	**Yes** **No**	
An alcohol or drug abuser in the household	**Yes** **No**	
An incarcerated household member	**Yes** **No**	
Emotional/mental Illness in family	**Yes** **No**	
The mother is treated violently	**Yes** **No**	
One or no parents	**Yes** **No**	
Emotional neglect	**Yes** **No**	
Physical neglect	**Yes** **No**	

Total ACE Score_____

Appendix #3b

Adverse Childhood Experience (ACE) Glossary

Recurrent physical abuse	**Did a parent or other adult in the household <u>often</u> push, grab, slap or throw something at youth? or <u>Ever</u> hit youth so hard that resulted in marks or injury?**
Recurrent emotional abuse	**Did a parent or other adult in the household <u>often</u> swear, insult, put down or humiliate the youth? or Act in ways that made the youth afraid of possible physical hurt?**
Contact sexual abuse	**Did an adult or person at least 5 years older than youth <u>ever</u> …touch, fondle or have youth touch their body in a sexual way? or Try to or have oral, anal or vaginal sex with youth?**
An alcohol or drug abuser in the household	**Did youth live with anyone who was a problem drinker or alcoholic or who used street drugs?**
An incarcerated household member	**Did a household member go to prison?**
Emotional/ Mental Illness in Family	**Was a household member depressed or mentally ill or did a household member attempt suicide?**
The mother is treated violently	**Were youth's mother or stepmother: Often pushed, grabbed, slapped, or had something thrown at her? or Sometimes or often kicked, bitten hit with a fist or hit with something hard? or Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?**
One or no parents	**Were parent <u>ever</u> separated or divorced?**
Emotional neglect	**Has the youth expressed having feelings of not being loved or important or special by the family ? or That the family did not look out for each other, feel close to each other or support each other?**
Physical neglect	**Does the youth <u>often</u> feel that there was not enough food to eat, had to wear dirty clothes and had no one to protect him/her? or Parents were too drunk or high to take care of or bring youth to doctor when needed?**

Appendix #4

Defining Successful Disenrollments
(Revised: 9/8/11 –CBCL/YSR Points Restored)

Each disenrollment is ranked on a 100-point scale

Factors in defining successful disenrollments:	How Measured
1. Needs are met by last POC meeting	- Average of Need Ranking in final POC
2. Parental perception of change.	- Disenrollment survey done by parent(s)
3. Youth perception of change	- Disenrollment survey done by youth
4. Clinical symptoms remaining per family report	- Disenrollment Child Behavior Checklist (CBCL)
5. Clinical symptoms remaining per youth report	- Disenrollment Youth Self Report (YSR)
6. Permanency being achieved (Wrap only)	- Youth's placement at disenroll

SCORING:

Needs met by last POC meeting: *Average Need Ranking scores for final POC.*

	Wraparound 30 possible	*REACH 60 possible*
Average score 4.5 – 5.0	*= 30 points*	*= 60 points*
Average score 4.0 – 4.49	*= 25 points*	*= 50 points*
Average score 3.5 – 3.99	*= 20 points*	*= 40 points*
Average score 3.0 – 3.49	*= 15 points*	*= 30 points*
Average score 2.5 – 2.99	*= 10 points*	*= 20 points*
Average score <=2.49	*= 5 points*	*= 10 points*
No disenrollment POC done	*= 0 points*	*= 0 points*

Parent perception of change: *Data taken from Disenrollment Survey completed by parent(s). If more than one parent/guardian completed a survey, points will be based on the average score of those surveys.*

	Wraparound / REACH 10 possible
Average score 4.5 – 5.0	*= 10 points*
Average score 4.0 – 4.49	*= 8 points*
Average score 3.5 – 3.99	*= 5 points*
Average score <= 3.49	*= 2 points*
Missing	*= 0 points*

Youth perception of change: *Data taken from Disenrollment Survey completed by youth. If youth is identified as too young or too low functioning to complete the survey, this category will not be scored. In those instances, the total points earned for all other factors will be weighted.*

	Wraparound / REACH 10 possible
Average score 4.5 – 5.0	*= 10 points*
Average score 4.0 – 4.49	*= 8 points*
Average score 3.5 – 3.99	*= 5 points*
Average score <= 3.49	*= 2 points*
Missing	*= 0 points*

Clinical symptoms per family report: *Data taken from CBCL completed by parent(s) at disenrollment. If more than one parent/guardian completes a CBCL, points will be based on the average # of clinical scores within those tools.*

# Internal/External/Total Scores in the Clinical Range	*Wraparound / REACH 10 possible*
None	*= 10 points*
1	*= 5 points*
2 or 3	*= 2 points*
No discharge tool submitted	*= 0 points*

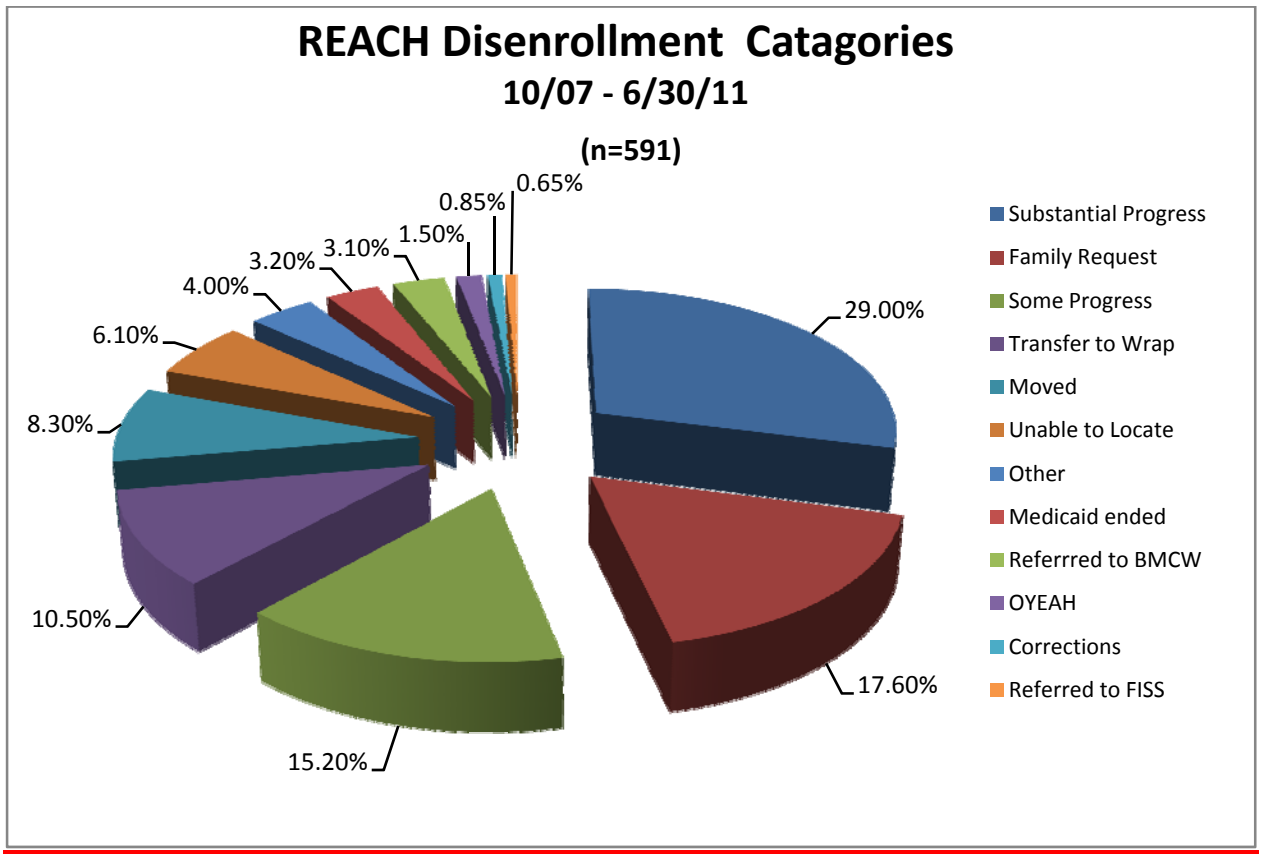
Clinical symptoms per youth report: *Data taken from YSR completed by the youth at disenrollment. If youth is identified as too young or too low functioning to complete the survey, this category will not be scored. In those instances, the total points earned for all other factors will be weighted.*

# Internal/External/Total Scores in the Clinical Range	*Wraparound / REACH 10 possible*
None	*= 10 points*
1	*= 5 points*
2 or 3	*= 2 points*
No discharge tool submitted	*= 0 points*

Permanency being achieved: *Youth's placement at disenrollment. (***WRAPAROUND ONLY)**

	Wraparound 30 possible
Home / Independent Living / Kinship / Legal Guardian / Relative / Pre-adoptive or Sustaining Foster Care	*= 30 points*
Transitional Foster Care	*= 20 points*
Group Home / Shelter Care	*= 10 points*
Residential / Runaway-Missing	*= 5 points*
Detention / Corrections	*= 0 points*

Appendix #5


REACH Disenrollment Catagories
10/07 - 6/30/11
(n=591)
29.00%
17.60%
15.20%
10.50%
8.30%
6.10%
4.00%
3.20%
3.10%
1.50%
0.85%
0.65%
Substantial Progress
Family Request
Some Progress
Transfer to Wrap
Moved
Unable to Locate
Other
Medicaid ended
Referrred to BMCW
OYEAH
Corrections
Referred to FISS